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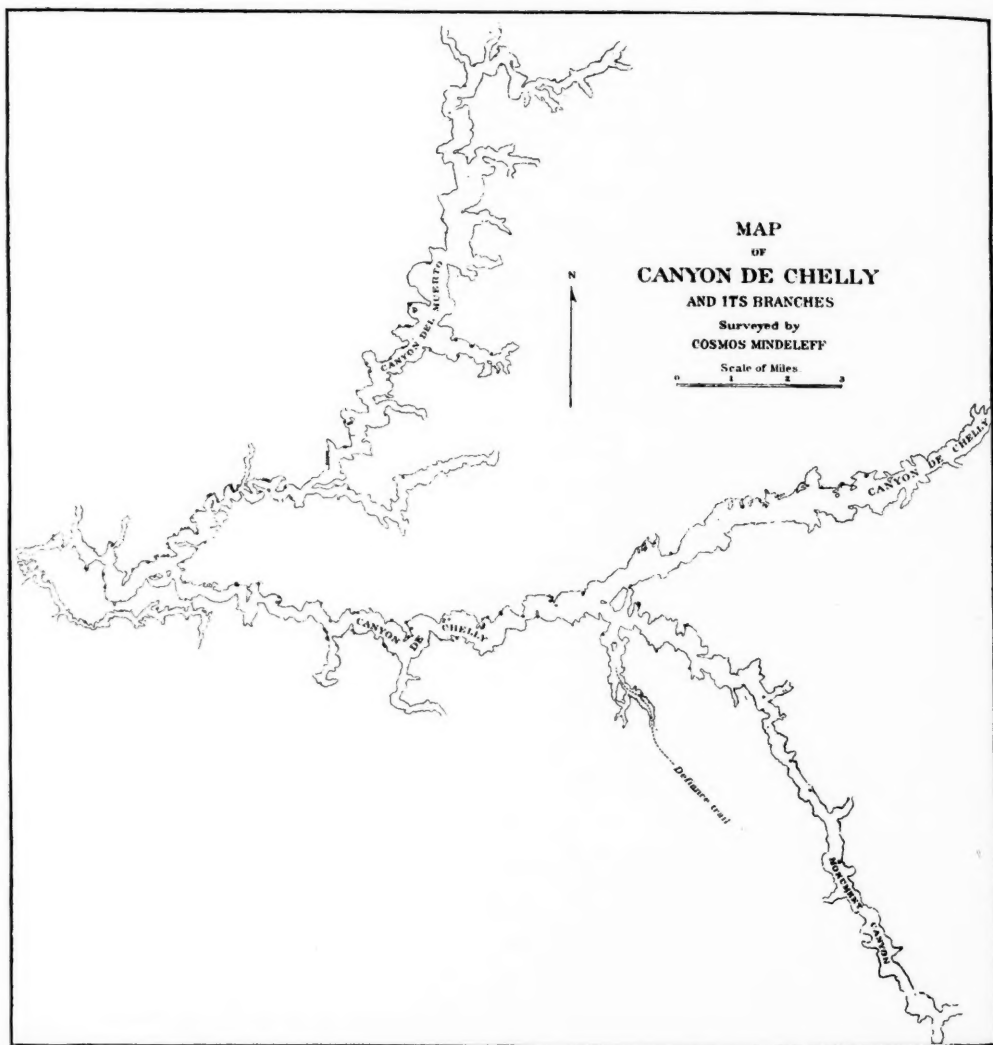
ANTIQUITIES OF THE UNITED STATES

De Chelly, del Muerto and Monument Canyons

BY REV. HENRY MASON BAUM, D.C.L.

IN a series of articles on the *Antiquities of the United States*, to be published in RECORDS OF THE PAST by or under the direction of its Editors, it is proposed to consider the history of man and the extinct forms of animal life and the geological questions related to both, within the territorial limits of the United States.

The most interesting locality, in which different types of ruins are found, is the region in which are located the de Chelly, del Muerto and Monument Canyons and their tributaries, in the northeastern part of Arizona Territory. An official topographical survey of the Canyons by the Government, has never been made. The accompanying map, reproduced from the *XVI Annual Report of the Bureau of Ethnology* [1894-1895], was made by Mr. Cosmos Mindeleff for his monograph in that volume of the reports of the Bureau. The general outlines of the map are correct. It will be seen that the Canyon del Muerto has a general trend to the northward and forms a junction with the Canyon de Chelly about 5 miles from Chin Lee, the mouth of the main canyon. The general trend of the Canyon de Chelly is to the northeast. Monument Canyon forms a junction with Canyon de Chelly about 12 miles from Chin Lee and its general trend is to the southeast, rather greater than indicated by Mr. Mindeleff. Numer-



THIS SKETCH MAP BY MR. MINDELEFF GIVES A GENERAL IDEA OF THE CANYONS. THE RUINS ARE INDICATED BY DOTS; SOME DO NOT APPEAR IN THIS REDUCTION FROM THE ORIGINAL. THE CANYONS EXTEND MANY MILES BEYOND THE LIMITS HERE GIVEN. BUT ALL THE RUINS ARE NOT NOTED BY MR. MINDELEFF. BY FAR THE GREATER NUMBER IS IN CANYON DEL MUERTO

ous tributary canyons branch out from the 3 main canyons varying in length from $\frac{1}{2}$ to over 6 miles. The extreme length of each of the 3 canyons from Chin Lee is between 30 and 35 miles. They vary in width from about 200 feet to half a mile.

During the summer months it is possible to enter the main canyon at Chin Lee with a wagon and ascend the Canyons del Muerto and de Chelly for about 10 miles. But even in midsummer a heavy rain will in a few moments fill the dry beds of the canyons with raging torrents, making carriage travel dangerous. From the sources of the canyons water flows on the surface over boulder beds for a few miles and then disappears in the sandy bottoms, only to be reached by digging.

About 10 miles from Chin Lee in the Canyon del Muerto a difficult Indian trail leads up out of the canyon to the table-land. At the junction of Monument Canyon with that of de Chelly another Indian trail, through a tributary canyon about 4 miles in length, leads to the Ft. Defiance Road. Still another Indian trail about 8 miles up Monument Canyon (north side) leads to the table-land. The three trails are exceedingly difficult to traverse, and even then only during daylight. There are a few other points where it is possible for expert mountain climbers to get out of the canyons, but almost impossible to descend into them.

NATURAL SCENERY

The natural scenery from Chin Lee to the sources of the canyons is unique and unrivaled. From an almost abrupt descent into the Chin Lee valley the walls rise to varying heights of from 300 to about 1,400 feet. As a rule they are perpendicular, but often project several feet beyond their bases. The walls are of red sandstone and streaked with dark discolorations from the surface above. So very tortuous are the canyons that it is rarely one can see more than a mile ahead. Abrupt turns frequently reveal nothing but a perpendicular wall of stone ahead, with no possible way of advance.

For about 15 miles from Chin Lee an occasional oasis greets the visitor. On these the Navajo Indians grow corn, melons, etc., and sometimes a few peach trees. The brush Hogans, in which whole families live, are not encouraging evidences of advancement in civilization, and are in strong contrast to the Pueblo and Cliff ruins around them, which silently point to a more advanced race as their predecessors. Here and there is a large cotton-wood tree that the spring and autumn torrents have not washed away. Far up the canyons are beautiful groves of cotton-wood and piñons and refreshing streams flow over their rock and pebble bottoms.

In passing up the canyons one is liable to overlook the tributaries entering from the rear of towering walls. I was forcibly reminded of this on the occasion of my second visit to Canyon de Chelly. I sent the commissary wagon and members of the Expedition up over the table-land to camp for the night about 20 miles from Chin Lee on the Ft. Defiance Road, and with Mr. Lorin A. Clancy, my assistant, started up the canyon. It was our intention to return to the junction of Monument Canyon with de Chelly by 4 o'clock in the afternoon and take the trail through Bat Canyon (4 miles) up to the Ft. Defiance Road, which we would be able to reach before dark. But we were late in returning to this point and on our arrival there met a socially disposed Navajo. We knew that Monument Canyon entered at this point and to the right of it two small tributaries, and that

through the one to the extreme right was the Ft. Defiance Trail. We rode along with our Indian friend for about 2 miles, thinking we were in Bat Canyon, when we had the pleasure of meeting a bear. He disappeared through the dense piñons into a deep cove. Leaving our horses in charge of the Indian we started in pursuit of the bear. After an hour's search the Indian called to us and we learned that the bear had made his escape from the cove along the wall of the canyon on the talus, about 300 feet above us. We continued our journey, hoping to overtake the bear further up the canyon. We reached the Indian's Hogan about dark, and were invited to spend the night with him and his family. But we were anxious to reach camp for dinner, as we had taken only a light lunch with us, and were willing to take the risk of getting up to the table-land in the dark. By 9 o'clock we came to the conclusion that we were near the point of ascent. The canyon was very narrow and our trail led through the dense cotton-wood and piñons. But as we went on beautiful spires of sandstone stood out from the walls of the canyon, rising at this point to over 1,000 feet. We knew then that we were in Monument Canyon. But we thought the trail would lead us to some Indian's Hogan where we could spend the night. Another half hour brought us to a point so narrow that the trail ended in the dry bed of the canyon stream. A rattle snake's signal made our horses timid, and dismounting, we found a few feet ahead of us a partially decayed tree that had fallen across the bed of the stream. To this we set fire and, after securing our horses to some trees, spent the rest of the night on a large boulder. As we only had one blanket which was used as a saddle cushion for the camera on our pack horse, the night was not altogether a pleasant one.

At daylight the next morning we decided to follow the trail up out of the canyon. This necessitated 8 miles more of travel in the canyon. But the scenery was beautiful and grand beyond description. Quite a stream of clear water was now flowing over the rocky bottom of the canyon. The ascent to the table-land was exceedingly difficult, and we could neither ride nor lead our horses. The trail led up the north wall of the canyon. In rounding the head of the canyon we frequently had to make detours of a mile or two around little spurs of the main canyon. We reached camp about 4 o'clock in the afternoon.

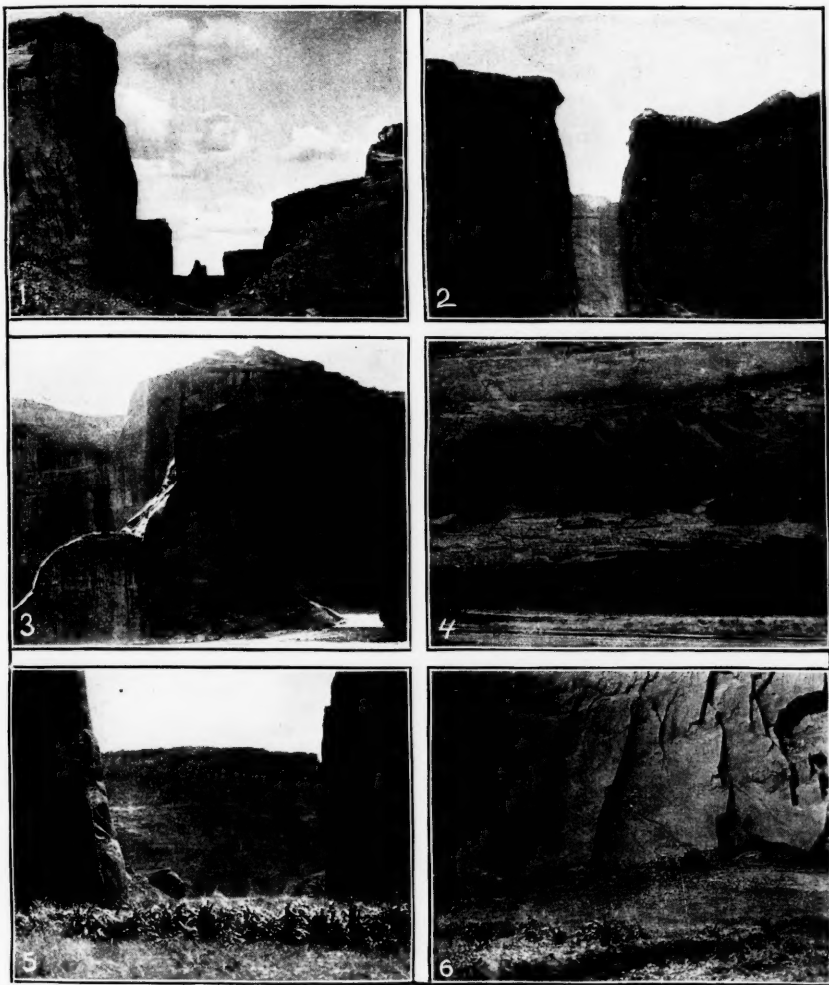
I mention this incident to show how easy it is to overlook the entrance to a tributary canyon. When the natural beauties of the canyons are known to the general public, no locality will attract more visitors than this.

ANTIQUITIES OF THE CANYONS

But it is not the natural beauties of the canyons that absorb the attention of the student of our prehistoric civilization. From the very entrance to the main canyon at Chin Lee, far up into the three canyons and some of their tributaries, are scattered Pueblo and Cliff ruins, the exact number of which is not known, for a thorough exploration of them has never been made for this purpose. But there must be over 200. Mr. Mindeleff has located about 140.

These ruins may be divided into two classes, viz:

First: Cliff ruins, which vary in size from a single room perched on some ledge of a canyon wall, to a great communal building, several stories in height, built in a deep rock cave, numbering from 25 to 75 or more rooms and which must have housed over 100 persons.



1, VIEW IN CANYON DEL MUERTO; WALL ON THE LEFT IS ABOUT 1,200 FEET HIGH; 2, VIEW IN CANYON DE CHELLY; WALL ABOUT SAME HEIGHT; 3, CHURCH ROCK IN CANYON DEL MUERTO, WITH RUIN ON NAVE JUST BACK OF TOWER; 4, CLIFF RUINS IN CANYON DEL MUERTO; 5, VIEW IN CANYON DE CHELLY, WITH CORNFIELD IN FOREGROUND; 6, PUEBLO RUIN IN CANYON DE CHELLY ABUTTING CANYON WALL

Second: Pueblo ruins on the canyon bottoms, adjacent to or abutting the walls of the canyons.

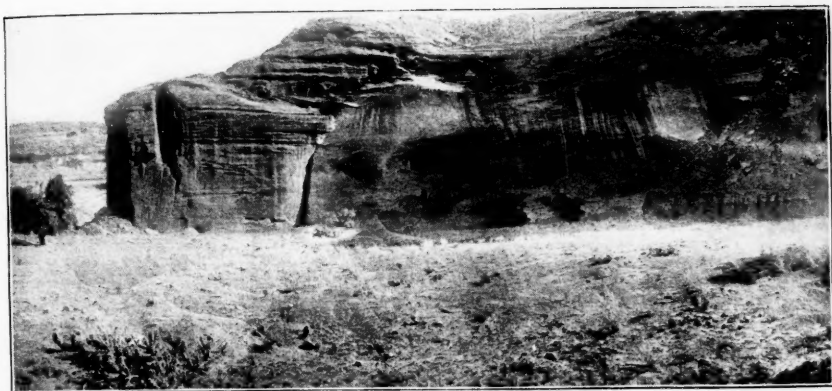
Mr. Mindeleff subdivides these ruins into different classes, but I think without reason. Each class varies in size and character just as the buildings of a modern village do. He greatly underestimates the number of people they once housed, and fixes the total population at from 300 to 400. It seems to me that to anyone who has made a study of Pueblo and Cliff communal houses, a conservative estimate would be at least 15,000. I do not believe that the people who lived in these canyons depended wholly upon the agricultural products of the canyons. The canyons are nearly in the center of the prehistoric civilization of the Southwest. The Pueblo ruins are not as large and extensive as those of the Chaco Canyon and in a few other localities, and the Cliff ruins do not equal in size those in the Mancos Canyon, Colorado. The opportunities for architectural expansion were not the same. But the material and workmanship of the Cliff and Pueblo ruins of these canyons are the same as in similar ruins in other parts of the Southwest.

PUEBLO AND CLIFF DWELLERS

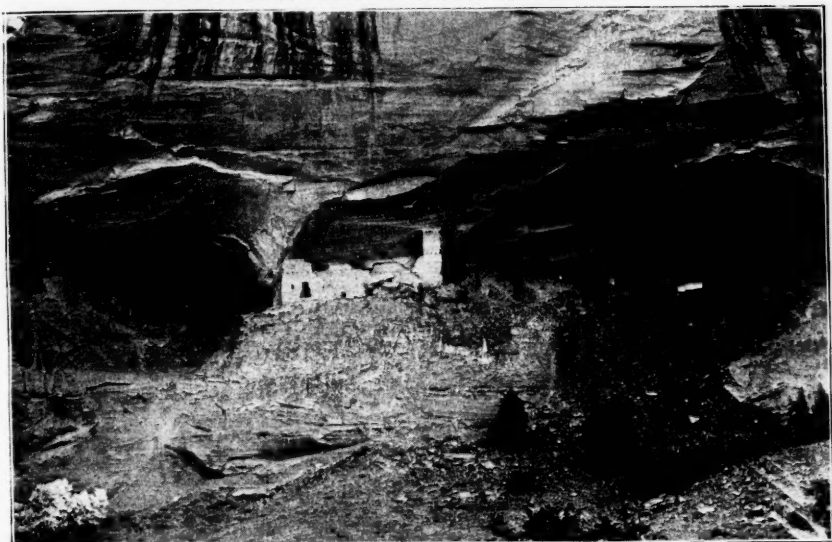
Here the Pueblos and Cliff Dwellers lived in close relationship. They constructed their buildings of the same material, and there are several instances in the canyons where Pueblo buildings were erected directly under Cliff houses. In the case of the Casa Blanca ruin, in the Canyon de Chelly, the Pueblo building was about 40 feet in height and access to the Cliff house above it was had from the Pueblo. Not only is the building material the same in both classes of buildings, but the stone implements, pottery, fabrics and human remains are the same. All lead to but one conclusion, viz., that the Cliff and Pueblo dwellers belonged to the same race and possessed the same characteristics.

CHARACTERISTICS OF THE PEOPLE

There are no evidences that the people were aggressive and warlike in character, or that they sought the seclusion of this labyrinth of canyons for refuge from an alien and warring race. The great majority of Cliff dwellings are not difficult of access from the canyon bottoms. The construction of the houses show that there was no provision made for more than the daily supply of water, which would have rendered it impossible for the besieged to hold out for more than 2 or 3 days. The inhabitants of the canyons would have been subjected to harassing and destructive attacks from the enemy above, a mode of warfare adopted by the Indians when Gen. Kit Carson's advance column in 1863 entered the Canyon de Chelly by way of the Ft. Defiance Trail at the junction of de Chelly and Monument Canyons. Captain Loughran, who led the advance guard down through the canyons, informs me that they were frequently harassed by the Indians rolling rocks over the bluffs, which would sometimes bound from one side of the canyon to the other and necessitated their taking shelter in the cliffs under the overhanging walls. The crashing of the rocks on the canyon bottom sounded, he said, like the reports of heavy artillery. Again, the entrances to the canyons could have been easily held by the enemy and the imprisoned inhabitants soon reduced to starvation. A large force could have moved up through the canyons as was the case in the Canyon del Muerto during the Spanish Conquest when so many of the



PANORAMIC VIEW IN CANYON DEL MUERTO SHOWING MUMMY CAVE



VIEW OF MUMMY CAVE AND RUINS



MUMMY OF AN OLD CLIFF DWELLER WITH BOW AND ARROW FOUND IN CANYON DEL MUERTO

Indians were massacred, giving to the canyon the name it has since borne—"Canyon del Muerto—the canyon of death."

TIME OF OCCUPATION AND EVACUATION

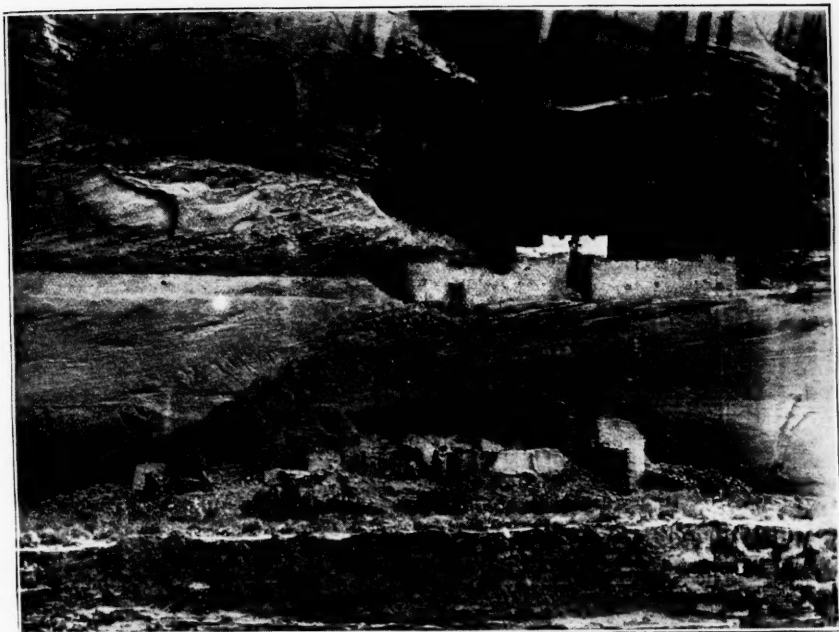
When were the buildings occupied by the people who erected them, and when and what was the cause for their leaving them? No one knows. There was a time when the prehistoric population, numbering many millions, of this part of the great Southwest was blotted out or driven from thousands of homes now in ruins. To me, it seems that it was when the volcanoes, like that of Mt. Capulin, were in a state of eruption and the great streams of lava were flowing over thousands and thousands of acres, still darkened with vast deposits of lava. But when those convulsions of nature took place the geologists are unable to tell us. A few of the cliff ruins in these canyons were inaccessible save by steps cut in the hard sandstone. In some places time has almost obliterated them. It has taken several centuries to effect this.

It must not be forgotten by the historical student, that the buildings in these canyons were constructed of stone that had to be quarried and faced by rude stone implements and frequently carried up steep cliffs to the caves in which the buildings were erected. It required many years of patient toil to accomplish all this. Only the modern architect can form an idea of the labor and time required for the construction of these avenues of unique buildings. The evidences of handiwork remaining show that there were many accomplished artisans among this primitive people. Exquisitely formed and decorated pottery, fabrics finely woven and in beautiful designs most difficult to execute and well-shaped stone implements prove that a high degree of culture had been reached when they were compelled to leave their homes.

On the ceilings and walls of caves, in which are found ruins, and high on the walls of the canyons are countless pictographs, many of which are in colors. These are all the written records they have left behind them. Whether a connected story of the life they lived can be constructed from them remains for some modern Young, Champollion or Rawlinson to determine.

In one of the Cliff ruins was found last autumn a corrugated jar about 20 inches in height, in perfect condition, filled to the brim with beans blackened with age. Other evidences have been discovered in the ruins showing that the occupants were not driven from their homes by famine. The mummy of an aged man, enveloped in well-preserved feather-cloth, was found in another Cliff ruin last autumn. By his side was a bow and arrow of perfect workmanship. As I made the accompanying photograph of the ancient Cliff Dweller and his bow and arrow, it seemed to me that a more pathetic discovery had not been made in recent years.

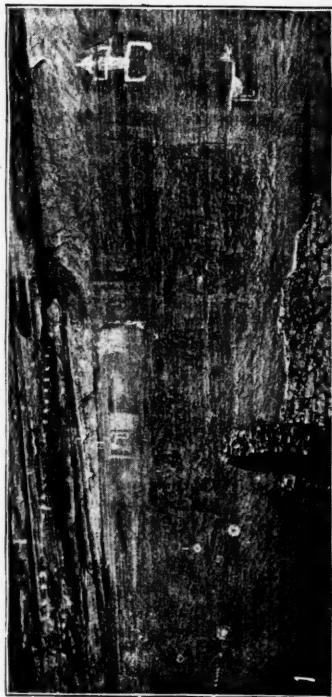
In another Cliff ruin was recently found the well-preserved skeleton of a male dwarf perfectly normal, about 35 years of age and about 33 inches in height. So far as I know this is the only discovery of the kind that has been made in the prehistoric ruins of the Southwest. It opens up a wide field for investigation, which may bring the student face to face with a race of dwarfs found in some of the native tribes of Africa. Each tribe is the possessor of from 1 to 4 of these dwarfs, whom they regard as their wise men. The saying is current among them that "you can fool a native many times but a dwarf but once." This skeleton and the mummy of the



CASA BLANCA CLIFF AND PUEBLO RUINS, CANYON DE CHELLY



PUEBLO RUINS IN CANYON DEL MUERTO ABUTTING CANYON WALL. TO THE LEFT AND ABOVE THE RUINS IS THE SWASTIKA CROSS, FOUND IN BOTH HEMISPHERES. THE LOWER ARM OF THE CROSS HAS BEEN INJURED BY THE BREAKING AWAY OF THE ROCK. THIS CROSS HAS BEEN FOUND ON DECORATED POTTERY OF THE CLIFF DWELLERS



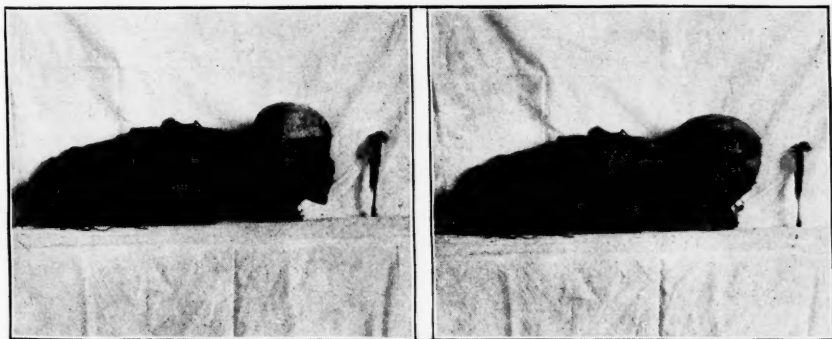
1, PICTOGRAPHS ON CANYON WALL UNDER CASA BLANCA CLIFF RUIN IN CANYON DE CHELLY; 2, PICTOGRAPHS ON CANYON WALL IN CANYON DEL MUERTO; 3, THE MOST EXTENSIVE SERIES OF PICTOGRAPHS IN THE CANYONS. THIS CAVE IN CANYON DEL MUERTO IS ABOUT 100 FEET ABOVE THE CANYON BOTTOM, AND THE PHOTOGRAPH WAS MADE UNDER DIFFICULTIES WITH AN AL-VISTA PANORAMIC CAMERA

aged Cliff Dweller and the jar of beans are in Mr. Day's rare collection.

That any of the present Indians of the Southwest are related to this prehistoric people I do not believe. The history of the Nile and Tigro-Euphrates Valleys shows that the people inhabiting them frequently advanced in civilization and culture and then fell back to a lower level and in time advanced again. But there is nothing to indicate a like condition of things in North America.

The Navajo Indians, in whose reservation the canyons are located, do not claim and have no traditions connecting them with the builders of the Cliff and Pueblo houses now in ruins. Since their return to this region, over 10 years ago, they have buried some of their dead in the ruins, but these can easily be distinguished from the earlier burials by the manner of interment. A notable instance is to be observed in that of the mummy here figured, inclosed in feather cloth. I can only state here that I do not believe the ancestors of the Hopi, Taos and Zuni Pueblo Indians were related to the ancient Pueblos and Cliff Dwellers. There are many points which I shall consider later in treating of their buildings and culture that make any relationship quite improbable. A systematic examination of the ruins and study of present conditions will only solve the great problem. This has never been undertaken.

The importance of this prehistoric center of our American civilization and culture cannot be overestimated. It is fortunate that, on account of its being little known to the public and the relic hunter, little damage has been done and that the ruins are now beyond the reach of the despoiler. The Interior Department has placed a custodian in charge of them, and only with its special permission will further excavations be permitted. I called the attention of the Secretary to their importance and that extensive excavations had been planned for the coming summer by irresponsible parties, and urged the appointment of a custodian. My recommendations were promptly acted upon, and we now have this most interesting locality preserved for future study and investigation by students of American history. Mr. Day, the custodian, as we rode through the canyons last summer, urged upon me the necessity of prompt action being taken by the Government for the protection of the ruins. A more competent man for this important position could not have been selected.



MUMMY, PARTIALLY PRESERVED, OF DWARF ABOUT 33 INCHES IN HEIGHT, FOUND IN CANYON DEL MUERTO

THE FOUNTAIN OF JUTURNA IN THE ROMAN FORUM*

BY MISS HELEN LOUISE BISHOP

BEFORE the summer of 1900 the name of Juturna was comparatively insignificant, even in the eyes of the classical student, while the location and even the existence of her fountain in the Roman Forum were considered problematical. When, therefore, Signor Boni, Director of the excavations, tore down the mediæval church of Santa Maria Liberatrice, on the north side of the Palatine, and brought to light evidences pertaining to a somewhat extensive worship of Juturna, he opened up a new and interesting field for study. So little is generally known of this obscure divinity that it will perhaps be well to trace out the legend from the Roman traditions, in order to a full understanding of her worship as now revealed to us.

Though the early Roman writers make no mention of Juturna, she had a place from a remote period in the unwritten legends of the people. We find evidence of her worship in myths and in the names of pools and monuments. She seems to have belonged to the class of divinities whose cult found expression in the superstitious beliefs of the simple folk, rather than in the writings of history or of poetry. When we come upon the name of Juturna in the few scattered references of the later authors, it is used without explanation, and with a familiarity that testifies to the general knowledge and recognition of her place among the lesser Roman divinities.

There is reason to believe that the ancient form of the name was Diuturna; a basin in the Vatican bears an inscription dedicating it to the goddess Diuturna. Tomasetti, in interpreting this inscription, calls attention to the analogy between the formation of the word Iovis from the archaic Diovis, and Iuturna from Diuturna. [*Bull. dell Inst.*, 1871, p. 144.] Furthermore, in a passage of the Cluentius of Cicero, and in one of Florus, the best manuscripts have the older form of the name. [*Cic., Clu.*, 101; *Flor.* I, 28; *Mommsen, Eph. Epig.* I, p. 36]. Varro says of Juturna: "Lympha Iuturna quae iuaret; itaque multi ægroti propter id nomen hinc aquam petere solent,—The nymph Juturna, one who gives aid; and so because of her name, the sick are wont to carry water hence." [*Varro, Ling. Lat.*, V, 71]. This derivation, making Iuturna "one who gives aid," would be not improbable, if the archaic form Diuturna had not preceded Iuturna.

No doubt Varro had in mind the characteristics peculiar to this divinity when he derived her name from Iuvare. For it was as the nymph who presided over healing waters and freely bestowed benefits upon mankind, that she was worshiped by both the earlier and the later Romans; and her worship found occasional mention in literature. Frontinus, in his work on the aqueducts of Rome, gives Juturna a place with Apollo and the Camenæ, as one of the divinities of health-giving springs: "Fontium memoria cum sanctitate adhuc extat et colitur; salubritatem enim ægris corporibus afferre creduntur, sicut Camenarum et Apollinis et Iuturnæ,—The memory of

*Read at the Classical Conference at Ann Arbor, Michigan, May 27, 1902, and revised for publication in RECORDS OF THE PAST.

springs has hitherto been sacredly cherished; for it is thought that they restore the sick to health, as the springs of the Camenæ, of Apollo and of Juturna." [*Front. De Aquæ Ductibus* I. 4].

Statius suggests the same thought:

Quis fonte Iuturnæ relictis
Überibus neget esse pastum?

"When the fertility of the land has failed, who would deny that there is nourishment in the spring of Juturna?" [*Stat., Sil.* IV. 5, 35].

The poet Propertius, though he does not use the name, undoubtedly refers to Juturna in the lines:

Albanus lacus et socia Nemorensis ab unda
Potaque Pollucis lympa salubris equo:

"The Alban lake and the kindred water of Nemi, and the health-giving nymph, from whose stream drank the horse of Pollux." [*Prop.* IV (III) 22, 25].

This reference to the "horse of Pollux" suggests a further aspect of the myth of Juturna, the story of the Battle of Lake Regillus. The legend is familiar, and even from childhood days our enthusiasm has been kindled by Macaulay's poem, while we have read of Juturna's fountain in the stirring lines:

When they drew nigh to Vesta,
They vaulted down amain,
And washed their horses in the well
That springs by Vesta's fane.

Dionysius of Halicarnassus tells how two horsemen appeared to the Dictator Postumius at Lake Regillus, inspiring the faltering spirits of his army, and winning the victory for the Roman side; then before the glorious news could reach the city, the twin horsemen were seen in the Forum, watering their horses at the spring "near the shrine of Vesta," ἡ παρὰ τὸ ἱερόν τῆς ἑστίας. [*Dion. Hal.* VI. 13, 2].

The religious association of the twin gods with Juturna is confirmed by Valerius Maximus and by Plutarch, in their accounts of a similar incident in the Macedonian War, when two horsemen appeared in the Roman Forum, watering their horses "ad lacum Iuturnæ," to quote from Valerius Maximus; κατ' ἀγορὰν πρὸ τῆς κρήνης, in the words of Plutarch. [*Val. Max.* I. 8, 1; *Plut., Aem. Paul.* 25. 2, *Coriol.* 3. 4]. Florus also mentions the "lacus Iuturnæ" in connection with the same story. [*Flor.* I. 28].

Furthermore, a coin of Aulus Postumius Albinus, dated 89 B.C., commemorating the distinction which the family of Postumius won in the Battle of Lake Regillus, bears upon one side the figures of the Dioscuri leaning on their spears, and beside them the two horses drinking at the fountain, which is represented here as a small round basin. [*Babelon, Mon. de la Rép. rom.*, vol. 2, pp. 378 seq.].

The myth is somewhat confused with historical fact; yet this much is clear, that there was a fountain of Juturna in the Forum, very near the temple of the Dioscuri, and that the two were closely connected, not only in their location, but likewise in the religious beliefs with which they were associated.

In the earlier stages of the development of the myth of Juturna, the divinity seems to have been simply a nymph who presided over healing water.

with little or no personal history. A characterization of her is made by Servius, in his commentary on Virgil: "Iuturna fons est in Italia saluberrimus iuxta Numicum fluvium, cui nomen a iuvando est inditum . . . de hoc autem fonte Romam ad omnia sacrificia aqua adferri consueverat; bene ergo Vergilius Turno fingit sororem, quae laborantes iuvare consuevit;—The spring of Iuturna, near the river Numicus, is the most health-giving in Italy; her name is derived from the verb iuvare; from this spring, moreover, it was customary to bring water to Rome for all sacrifices; with good reason, therefore, Virgil makes Iuturna, who is wont to relieve suffering, the sister of Turnus." [*Serv., Comm. in Aen. XII. 139*].

Out of this simple embodiment in the nymph of the beneficent power of a goddess, from whose sacred spring water was carried to Rome for sacrifice, there grew up a legend involving the human attributes of love and jealousy, which developed in the poems of the Augustan Age. Ovid tells how Jupiter, infatuated by love for Iuturna, called the nymphs together and trying to enlist them in his favor, bade them stop her as she fled from him along the banks of the river. The nymphs agreed to obey his command, but Lara, a nymph who "could not hold her tongue," warned Iuturna to flee the river banks, and then reported Jove's love for the maiden to Juno. For this treachery Jupiter took from Lara the gift of speech, but to Iuturna, in compensation for her suffering, he gave power over all springs and pools. [*Ovid, Fasti. II. 583-616*].

The same myth is found in the XII Book of the *Æneid*, but with some enlargement, for Virgil, as we have seen, makes Iuturna the sister of the Rutulian hero Turnus. At the bidding of Juno she comes to the aid of her brother in his war with Æneas, assuming the guise of a warrior; and taking the place of the charioteer, she leads the Rutuli on to action, until she is recognized by Turnus. Finally Jupiter sends a Fury to warn Iuturna that the Trojans must win and her brother be slain. In moving and pathetic words she declares that without her brother the immortality with which Jupiter has endowed her is of no value—and thus she leaves the scene of action to hide herself in the deep waters. [*Virg., Aen. XII. 139 f*].

This warlike and powerful goddess, with her love and grief for her human brother, is quite another being from the simple nymph whom the earlier Romans worshiped in spring and fountain.

Still another relationship is mentioned by Arnobius, for he makes Iuturna the wife of Janus: "Ianum . . . Ianiculi oppidi conditorem patrem Fonti, Vulturni generem, Iuturnæ maritum,—Janus . . . the founder of the citadel on the Janiculum, the father of Fontus, son-in-law of Vulturnus, and husband of Iuturna." [*Arnobius, III. 29*].

The Juturnalia, which Servius mentions in his commentary (Nam et Iuturnas ferias celebrant qui artificium exercent, quem diem festum Iuturnalia dicunt:—"Now those who work at trades celebrate the festival of Iuturna, which they call the Juturnalia"), is also referred to by Ovid. It was the annual festival of Iuturna, which took place on the 11 of January, when the goddess of health, Carmenta, was also worshiped. [*Serv. Comm. in Aen. XII. 139; Ovid, Fast. I. 461 f; Preller, Röm. Myth. II. p. 128*].

That the fountain structure of which remains are still to be seen in the Forum was not the only monument erected to Iuturna, is conjectured from other references in the Latin literature. Servius makes the statement that Lutatius Catulus dedicated to her a temple in the Campus Martius, at a time of drouth. [*Serv. Comm. in Aen. XII. 139*]. The conclusions as to

the existence and location of the temple are based largely upon a passage in Ovid, from which it is thought that its site must have been near the terminus of the Aqua Virgo, directly back of the modern Piazza di Spagna. [Ovid, *Fast.* I. 463; *Aust.* *De Æd. Sacris*, p. 45]. The association of Juturna with the ancient traditions of the Latins, as in the *Æneid*, and the growth of her cult in the early worship of Rome, point to a regard for the nymph not only among the Romans, but throughout Latium. The reference in Servius's Commentary, already quoted, to "the most health-giving spring in Italy" is not to the fountain in the Roman Forum, but a spring near Lavinium and the river Numicus, the sacred stream of Latium. This spring, with the sacredness of early association, was probably the first water to which Juturna's name was given.

The exact location of this spring is difficult to determine. Nibby says that there was in his time (the XVIII Century) a dried-up lake among the Alban Hills, which went by the name of Giuturna or of Turno. [Nibby, *Viag. nei cont.* II. p. 138]. Westphal definitely locates the pool of Juturna at the foot of the Alban Hills, on the road to Porto d' Anzio and Nettuno, though he calls in question the antiquity of the name. [Westphal, *Rom. Kamp.* pp. 13, 26, 37].

The various aspects of this charming legend have each a significance in a consideration of the remains in the Forum. The Romans of the Empire gathered about the spring a group of monuments of the elaborate design which characterized the period—and it is the remains of these later structures which to-day mark the place of Juturna's worship. The situation is familiar from its proximity to the 3 columns of the Temple of Castor, at the foot of the Palatine Hill, between the Temple and the House of the Vestals.

A full discussion of the remains cannot be attempted in this article: an accurate and detailed description is given in the *Notizie degli Scavi di Antichità* for February, 1901; from which the article by Signor Boni on Juturna has been reprinted under the title *Il Sacrario di Juturna*.

The sacred precinct was connected with the Palatine by an inclined ramp, built with two parallel supporting walls, the arches of which were left open in such a way as to form, with intersecting walls, a number of small chambers, and a short corridor at the end. The largest of these chambers, about 18 feet square, has a well-preserved pavement in opus spicatum, blocks laid in rows to represent ears of grain; this earlier pavement, however is in part covered by another of large square bricks. In the eastern wall of this same chamber may be seen a rectangular niche, below which a statue was found lying on its face. The figure is known by its attributes of a staff and a serpent, as well as by a boy at its left, who holds in his hand a cock for sacrifice, to be the Greek god of medicine, Æsculapius.

The original supporting walls of the inclined ramp were much cut into and altered; the result being a confusion of walls, arches and chambers, the purpose of which it is difficult to determine. The discovery of the statue of Æsculapius, however, suggests that these chambers were a sanctuary of this divinity, whose worship was introduced into Rome at an early date [Livy, X. 47, 7; XXIX. 11]; and that the sick were brought here to spend the night sleeping under the spell of the god, as in the temple at Epidaurus.

In the floor of the corridor at the end of the ramp, is a pavement in red and white mosaic, with figures in black, representing a water scene: a boat in which sits the rower, with one oar, a sea-bird, a fish, and several points of a star. The interpretation is obvious; the divinity of the water is symbol-

ized in these pictorial scenes, and her connection with the Dioscuri is suggested by their recognized symbol, the star.

The relation of these chambers to the ramp, as well as the orientation of the whole area, may be seen in a fragment of the *Forma Urbis*, the "marble plan" of Rome, which dates from the time of Septimius Severus and Caracalla. The ramp is represented with stairs at its end, which are now destroyed; the adjoining rooms and corridor are in general those of the remains. The fountain appears here as a square basin, with 2 openings in the floor, and steps leading to the bottom. This is the center of interest in the worship of Juturna, the fountain over the spot where the spring gushes from the earth. The marble basin was found almost intact, and filled with a mass of water-jars, vases and pieces of sculpture.

The basin is sunk below the level of the ground, a large and nearly square hole cut in the earth, measuring 17 by 16 feet, and 7 feet deep; inclosed on the 4 sides with a wall of tufa rock, in the construction known as *opus reticulatum*. The lower part of this inclosing wall projects on 3 sides, forming a ledge 4 feet in width, about half way between the top and the bottom of the basin. The wall on the east side has no projection, but supports an arch built of brick, and above this a brick wall, only a part of which stands unbroken. It is evident that this eastern wall served to separate the fountain from the chamber on its other side, the one previously mentioned, in which the statue of *Æsculapius* was found. [See Fig. 2].

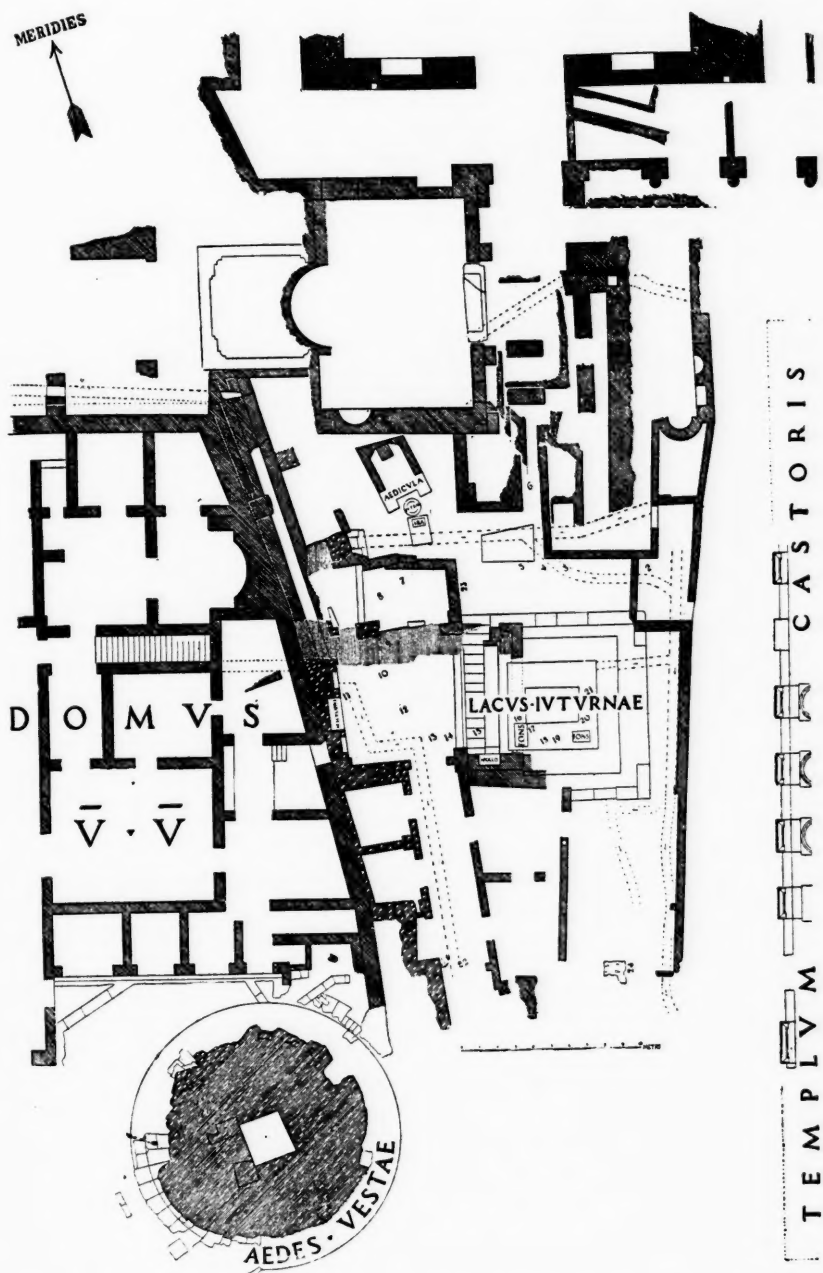
On the southwest corner of the basin, above the ledge, a block of tufa juts out from the wall, probably the remains of the upper steps of the 3 which are represented in the marble plan.

For the purpose of receiving the water as it springs from the ground, 2 rectangular holes were cut in the floor of the basin, one in each corner of the north side. They are lined throughout with travertine, making solid receptacles not easily affected by the water. Signor Boni, in a careful examination of the ground through which the water courses, has found immediately below the tufa foundation of the basin two strata of clay, the upper lighter and more compact than the lower; below this a layer of yellowish gravel, through which the water filters. It reaches the openings in the basin of the fountain at a point 36 feet above sea level.

The center of the floor of the basin is occupied by a large rectangular platform, with a wide step extending around 3 sides, but not on the east. The construction of this platform, like that of the basin, is *opus reticulatum*.

The surface of the platform, as well as of the floor and walls of the basin, was entirely covered with white marble in large slabs, which were held in position by a layer of mortar between them and the foundation of tufa. As only a few of these slabs are missing, it has been possible to restore the marble fountain, and to give it somewhat of its ancient beauty, when filled with the water from the spring, which flows pure and clear as in ancient days.

In the mass of earth and fragments that accumulated over the fountain in the Middle Ages, some pieces of statuary were discovered which have been identified as belonging to a group of the Dioscuri. These fragments, of different qualities of marble, seem to belong to a restoration of a Greek original of the V Century, a group consisting of the nude figures of the twin gods, with their horses, a well-known representation of the Dioscuri. The group probably stood on the platform in the center of the marble basin. In the days of its ancient glory this must have been a monument not



PLAN OF THE FOUNTAIN OF JUTURNA SHOWING ITS RELATION TO THE TEMPLE OF VESTA, THE HOUSE OF THE VESTALS AND THE TEMPLE OF CASTOR AND POLLUX [FIG. 1]

unworthy of its surroundings; the deep basin lined with the pure white marble, and filled with the water of peculiarly sacred memory, and rising from its center the figures of the divine horsemen; a beautiful and noble representation of the divine spirit of helpfulness as symbolized in the legend of Juturna and the Dioscuri. [See Fig. 3].

A monument of scarcely less interest than the marble fountain is the shrine that stands at a short distance from its southeast corner toward the Palatine. This small structure resembles the shrines that one sees to-day on some of the country roads in Italy. The cella is inclosed on 3 sides by walls of brick, which, though badly broken, still retain a part of their plaster covering. A marble door sill marks the entrance to the cella, and inside, against the brick wall, stands a block of brick masonry, perhaps the pedestal of a statue of the goddess Juturna. In this simple structure we find the plan of a diminutive temple, the reconstruction of which is made possible by the discovery of certain fragments that have been identified as belonging to it: an Attic base of a column, various pieces of the shaft, a composite capital, several pieces of the architrave and frieze, and a part of the tympanum, carved in delicate moldings. A fragment of the frieze is of special interest, in that it bears upon its smooth front in letters of bronze: IVTVRNA (i) S(acrum); a dedication of the shrine to the divinity of the spring.

Directly in front of the shrine stands a hollow cylinder of white marble used as the mouth of a well; it is about 3 feet high and in a perfect state of preservation. The smooth surface of the marble bears on the front this inscription, in letters of the first century of our era: [See Fig. 3].

M · BARBATIVS · POLLIO
AED · CVR
IVTVRNAI · SACRVM · REST
PVTEAL

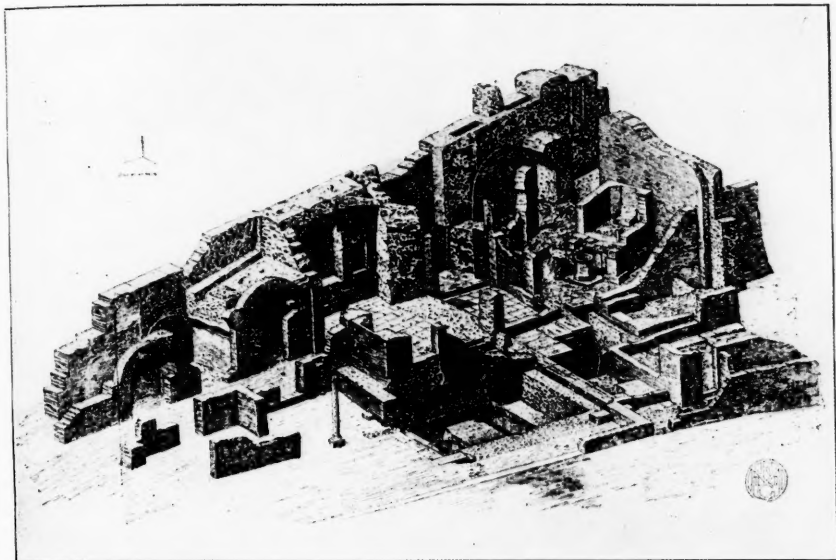
"Marcus Barbatius Pollio, curule ædile, restored this *puteal*, sacred to Juturna."

The words are carved also on the top of the puteal, on the upper surface of the rim, repeated exactly, with the exception of the word PVTEAL.

The meaning of the word puteal, "the mouth of a well," would sufficiently indicate the purpose of the marble cylinder, and when one stoops over its edge and looks into the depths of the well, he sees even now the water from the same spring that has filled it for centuries.

The method of drawing water may be conjectured from 6 small vertical furrows on the inner margin of the top of the puteal. As in the case of primitive wells of modern times, a pail was fastened to the end of a rope and let down into the well. While the drawer of the water pulled at the other end of the rope, the weight of the pail would necessarily bring a strain upon it and gradually wear depressions in the inner edge of the marble.

For the convenience of those who wished to draw water, a block of roughly cut marble was placed in front of the puteal, on the same side on which the holes appear, making a step by which they could easily reach over the top.



FOUNTAIN OF JUTURNA—PERSPECTIVE ELEVATION OF THE REMAINS [FIG. 2]



Photo. by Prof. Karl P. Harrington

FOUNTAIN OF JUTURNA—ALTAR, PUTEAL AND FOUNDATION OF SHRINE [FIG. 3]

The source of supply for the well is the marble-lined basin, with which it is connected by an underground lead pipe. The water then, coming originally from the sacred spring of Juturna, was undoubtedly held to be quite as efficacious as that of the fountain.

It is probable that the water of both well and fountain was devoted in imperial times chiefly to religious purposes. A consideration of the close proximity of the fountain to two of the oldest and most sacred of the Roman temples, as well as of the mythical beliefs connected with this particular spring, leads to the conclusion that people drew the water for carrying to the sick, as well as for use in sacrifice or in the rites of expiation. In earlier times, however, the water was probably put to secular use; for Frontinus says of the method of obtaining water before the days of aqueducts, that for 441 years after the foundation of the city, the Romans were content to use the water which they drew from the Tiber, the pools and fountains. [*Front. De Aquæ Ductibus* 4].

Another evidence of the sacred character of the well is found in an altar which was set up in front of the puteal, on the marble step, which served as a base. That the altar dates from the III or IV Century after Christ is evident from the character of its workmanship; and the scene that is depicted on its face clearly belongs to the later development of the legend. Two figures are represented, one of a woman, wearing the simple robe of a Roman matron, holding in her left hand a scepter, and raising her right arm in an attitude of address to a man who stands before her. He is in the garb of a warrior, with helmet and spear. The scene represents the story that Virgil tells of Juturna, of her farewell to her brother Turnus. The sculpture is of the inferior quality of the decadent period; yet the figure of Juturna expresses a dignified sorrow which suggests the pathos of the farewell in the lines of the poet.

In the mass of débris that accumulated over the fountain of Juturna and the well were found a large number of wine jars (amphoræ), some whole, others in fragments, vases and lamps of terra-cotta, many glass fragments, parts of vases and of bottles and various objects in bronze and iron. Among these numerous fragments one might expect to find indications of votive offerings similar to those from the spring at Lago Bracciano. Yet the objects discovered here are utensils for some practical purpose, those used for carrying water for the sacrifice or to the sick or for furnishing light at the well if it were necessary to draw water at night; and not such as were ordinarily offered in gratitude for a cure. [See Fig. 4].

One altar was evidently devoted exclusively to the service of Juturna; another, and larger one, which was found lying on its side in the basin of the fountain, has to do with the story of the Dioscuri. The altar is an oblong block of marble, with a border in a leaf pattern, and a figure in relief on each of the four sides. On one of the smaller faces, the figure of Jupiter stands, in the dignified attitude of the ruler of the heavens, resting upon his left foot, a long scepter in his right hand. It may be Jupiter as the lover who vainly sought Juturna that is here represented; yet the majestic attitude of the figure suggests the ruler of gods and arbiter of human fate rather than the man with human passions; and the other figures on the altar are more directly related to the Dioscuri than to Juturna. On the opposite side appears the figure of a woman, who is recognized by the swan at her feet, as Leda, the mother of the Dioscuri. The peculiar twirl of her drapery in



JUPITER



DIANA LUCIFERA



THE DIOSCURI



LEDA

FOUNTAIN—LARGE ALTAR WITH RELIEFS [FIG. 4]

a semicircle above her head seems to have been designed to fill in the space, rather than as a characterization of Leda.

The third figure is also a woman, wearing a flowing robe and holding in her hands a long torch; the relief is recognized as the type of Diana Lucifera often seen on Roman coins. The introduction of the goddess of woods and brooks, who promotes health and protects virgins, would be natural in the worship of Juturna. A statue of Diana was found in the fountain, which is identified by the symbols on her breast as the goddess of the Ephesians. Yet the connection of the relief with the Dioscuri leads some critics to interpret the figure as Helen, the sister of the twin gods. [*Deubner, Neue Jahr.*, vol. 10, 1902, p. 379; *Atene e Roma*, 1902, p. 523].

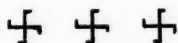
The figures in the relief on the fourth side, exactly alike in attitude and dress, are the twin brothers; a typical representation of the Dioscuri, with the pointed caps, the long staves, upon which each rests his arm, the single garment thrown carelessly over the shoulder and a star above each figure. Only the horses are wanting to complete the picture of the Dioscuri as they rested at the spring after the battle. These, as helpers of men, were associated with the goddess of the healing spring in the legend; likewise they were worshiped, not only in the adjoining temple, but at the fountain itself, as shown by this altar on which are represented the divinities most closely connected with the story of the twin gods.

While the question of the date of these remains cannot be discussed here, yet a word on the subject may be of interest. The foundation walls are built largely in opus reticulatum, the method of laying tufa blocks that belonged to the early empire. Among the examples of this construction there is a considerable variety; for instance, the foundation wall of the shrine is of the I Century, while that of the rectangular platform in the basin of the fountain is of a different character. [*Boni, Il Sac. di Iut.* pp. 71 and 84]. Again, the wall of one of the rooms adjoining the fountain is of the age of Hadrian, unlike the opus reticulatum last mentioned [*ibid.* pp. 64 and 84]. To give one example from the inscriptions, the lettering on the top and sides of the puteal belongs to the I Century of the Empire [*ibid.* p. 76]. In general it may be said that the remains are of the imperial time, yet restorations of a much earlier construction. For in the lower part of the walls of the basin, also in a part of the walls of the adjoining chambers, the construction is opus incertum [see Fig. 4], belonging to the Republican Era [*ibid.* pp. 81 and 62].

In the Middle Ages the spring of Juturna seems to have sunk into oblivion; in the X Century the spot was believed to have been the site of the Lacus Curtius, and went by the name of Infernus. The people of this superstitious age believed that here Saint Sylvester killed a dragon, as stated by the *Mirabilia*, the guidebook for pilgrims. [*Mirabilia Romæ*, 22]. Thus the spot, which to the ancient Romans symbolized the most beneficent services of divinity in behalf of men, came to be regarded in the Middle Ages as a place of darkness and dread. The holy man who slew the dragon was said to have built on the spot a church, which sometimes bore his name, San Silvestro in Lacu, but which he dedicated to Santa Maria Liberatrice, with the prayer—libera nos a poenis inferni. [*Gregorovius; Hist. of Rome in the Middle Ages*, III. p. 22 and note; p. 544].

The beauty and extent of the remains in the Forum prove beyond a doubt that the worship of Juturna held an important place in the religion of the Romans. The worship must have been largely of a practical nature.

having to do with the cure of sickness and not purely religious devotion. Yet we may believe that the people felt the beauty of the legend, as they expressed in stone and marble their appreciation of the divine qualities which appeal to people of every age.



EXCAVATION OF THE RUINS OF BABYLON

PART III

IN January, 1900, the excavating in the "eastern extension" had progressed far enough to reveal the ground plan and the workmen began clearing out the interior and laying bare the clay-brick wall surrounding the whole building. The courtyard, in which there is a well, is surrounded by the rooms. The south side of the court is marked out from the rest by a special perpendicular ornamentation of its wall and by two towerlike pillars projecting from both sides of the main entrance. This door leads to the main entrance A, B, D, E. The floor in the court and in the rooms was composed of brick pavement. Upon this lay an artificial deposit, about 2 m. high, and on this again brick pavement. Underneath the upper pavement, mainly in the compartments F, K, a number of tablets were found, in all about 50 pieces, which contain lists of names and payrolls of workmen. The lists are dated according to the days, months and years of the reign of Nebuchadrezzar and Evil-Merodach. In the lists of Nebuchadrezzar the building is called the "Temple of Nin-mach" and in those of Evil-Merodach "Temple of Belit-ilani." Accordingly one can also with safety refer the well-known building cylinders to this temple. Here is written: "E-nach, the temple of Nin-mach, in the center of Babylon have I newly erected to Nin-mach, the princess, the sublime one, in Babylon. I had it surrounded by a mighty *kisu* of naphtha and bricks, with piles of earth . . . cleaned, I filled the inner part of it." The *kisu* doubtless refers to the brick wall surrounding the building. The laborers which are registered on our tablets worked on the filling in of this mass of earth. Two fragments of similar small building cylinders have been found in the excavation; on one appears the name of Nin-mach and on the other that of Nebuchadrezzar.

I had a deep excavation made in the Compartment E, as D was presumably the main compartment, and E the adytum. Here was found beneath the lower pavement, in the filling material, a broken but extremely finely inscribed clay tablet, and on both the front and rear sides, in 2 columns, a hymn in the Sumerian language, with interlinear Babylonian translation; in all it contained about 180 lines of writing, of which, however, much is damaged.

When the excavation of the compartment had reached a depth of 10 m. below the level of the hill, a fairly large, well-preserved cylinder, carefully inscribed in Assyrian, was found, on which Sardanapalus recounts that he has newly built the Temple for Nin-mach in Babylon. Around the cylinder lay 12 tablets, besides a small terra cotta fragment. The latter shows the lower part of a naked female figure, facing to the front, upon a stele-form background; another terra cotta, almost identical, except that in style it was better finished, was also found in Compartment K. Undoubtedly we see in this presentation a copy of the old cult picture of Nin-mach. A number of

relief bricks—parts of the bodies of steers and birds—were found in the ruin.

The following is Dr. Meissner's translation of the Inscription of the Sardanapalus Cylinder:

Asurbanipal, the great king, the mighty king, the king over all, the king of Assyria, the king of the four quarters of the earth, the king of kings, the prince without equal, who rules the upper sea down to the lower sea, and who brought to his feet the whole of the minor kings; the son of Esarhaddon, the great king, the mighty king, the king over all, the king of Assyria, the ruler of Babel, the king of Sumer and Akkad, the grandson of Sennacherib, the mighty king, the king over all, the king of Assyria, am I.

The edifice of E-saglia, which my father, my progenitor, had not completed, the offerings of E-saglia and those for the godhead of Babel I established, and the foundations (?) of Babel I strengthened.

In order that the strong may not harm the weak, I, Šamaš-šum-ukin, have entrusted my twin (?) brother¹ with the royal dominion over Babel.

During the same period I have caused to be reconstructed Emach, the temple of the goddess Nin-mach in the midst of Babel.² In all eternity, Oh sublime Nin-mach, look down compassionately upon my pious deeds, daily before Bel and Belit pronounce thou my prosperity, a life of many days prescribe as my fate, like as heaven and earth establish thou firmly my government. But with reference to Šamaš-šum-ukin the king of Babel, my twin (?) brother, may his days be of long duration, and may he satisfy himself with offerings!

Whosoever shall from malice erase my signature or the name of my twin (?) brother, or destroy my inscription, or change its location, let his doom be pronounced by Nin-mach before Bel and Belit, and may his name and his seed be exterminated in all lands!

In the territory to the east of the palace I think the "Hanging Gardens" were located. This will doubtless amaze many because all who have been interested in Babylon have differed in their opinions regarding the location of this "Wonder of the world." The east canal and the small canal, which traverse this territory, incline me to this belief.

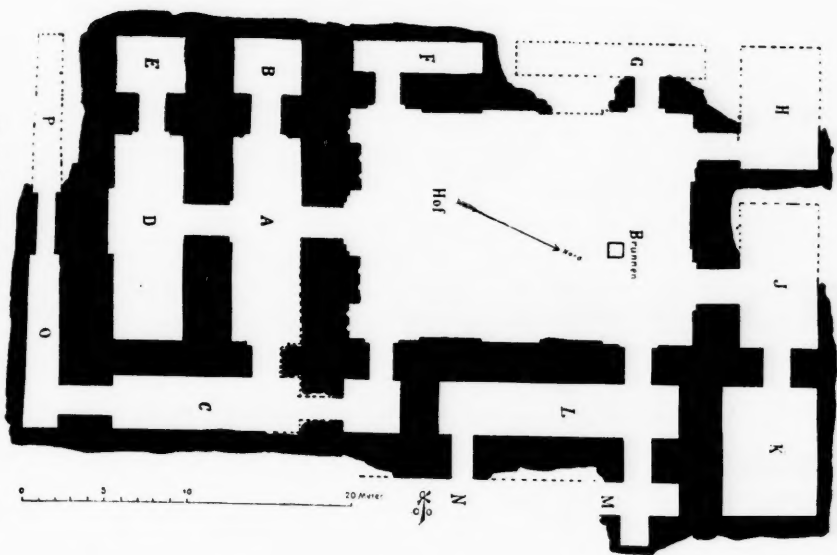
Gardens are certainly not unusual in connection with ancient palaces; here, however, an immense mass of wall had to be used to attain the necessary height in order to reach the level of the palace, or yet to overlook it, and just this fact was doubtless the reason for the importance of the locality. However, the excavation will throw more definite light on the question.

Everywhere in the excavation I notice the obscure older building and older rubbish. Isolated discoveries of the time of Nebuchadrezzar—such as the Hittite Stele are at hand. But wherever we dig—we have even gone down as far as 3 m. below the surface of the Euphrates—are found Nebuchadrezzar bricks, but nowhere even a trace of older buildings. In the Istar temple alone would it be possible to attribute the lowest portions to Sardanapalus, but in the filling-in, alongside of the Sardanapalus Cylinder, tablets of Nebuchadrezzar are lying. I have especially noticed the fact that older rubbish has never been used for these immense fillings, but either masonry of broken Nebuchadrezzar bricks or sand, clay, etc. Still it is possible that older buildings may yet come to light—perhaps in the south—however, it is not likely that they can be very important.

I am becoming more and more convinced that the Kasr is a complex, new building of Nebuchadrezzar and his father, and that the long line of rulers resided elsewhere within the limits of the City. In this connection

¹Dr. Meissner: my full (?) brother. "Twin brother seems better."—F. D.

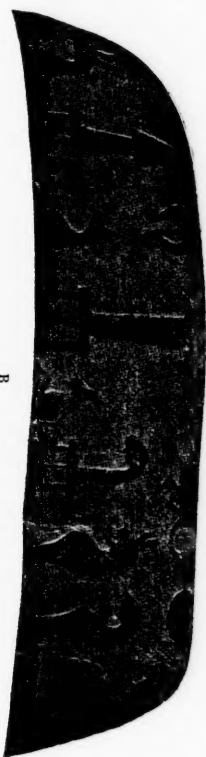
²Perhaps more correctly: "The center of Babel"?—F. D.



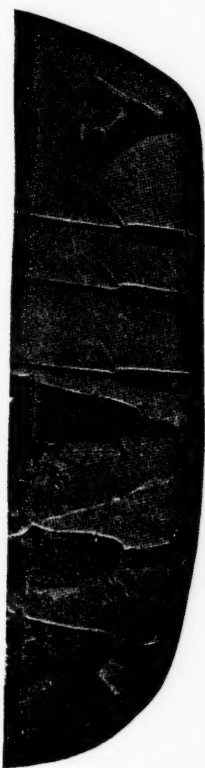
PLAN OF THE TEMPLE OF E-MACH



A



B



D

EMBELLISHMENTS ON THE DEED OF INVESTMENT

only Amran-ibn Ali needs to be considered. The remaining hills are, in my opinion, too low, and apparently have not the characteristic uniformity and extent of surface; on the other hand, Amran is high, massive and of greater expanse than it was possible to recognize before Andræ's plan. It is true that on the top lies a large layer of graves, partly very late; but what lies below we do not know. For this reason I would like to soon start work on this hill, and within a wider circumference than I had previously intended. It will be necessary to go down a considerable depth, in addition to clearing off a large mass of non-productive matter.

THE DEED OF INVESTMENT OF A NEBO PRIEST AT BORSIPPA

Through the gift of one of its members, Mr. James Simon, the Deutsche Orient Gesellschaft, in February, 1900, came into the possession of an extremely valuable Babylonian literary monument. It is a strong convex tablet of hard black stone, $15\frac{1}{2}$ cm. broad, 22 cm. long and at its central point 7 cm. thick. The tablet proves to be the artistically embellished deed of investment of a Nebo priest in the temple of Ezida at Borsippa, and is dated from the 12 Sivan of the 8 year of Nabu-Šum-iškuns, King of Babylon (probably about 750 B.C.). The inscription contains altogether just 100 lines, of which 21 and 22 are in two columns on the front side, 26 and 24 in the two columns on the rear side, whilst the 7 final lines are arranged in 2 columns on the right side margin.

The contents, partly verbatim, partly abbreviated, are as follows:

The goddess Nana, the sublime queen, the greatest of the godheads, the strong, the goddess of the goddesses, the highest of queens, who grants prayers, accepts supplications, the wife of Nebo, whose utterance is unchangeable, her command unbending, who like unto a compassionate father turns (toward one); and the god Aë, the strong, powerful one, who goes in front of her, who has the supervision over the temple, establishes the revenues—with their gracious countenances they gazed upon Nabumutakkil, son of Aplu-etir, and led him into the most holy place of Nebo, of Borsippa, and gave to him for his own, daily so and so much meal and wine, beef and mutton, fishes, birds, vegetables, etc., of all the revenue of the Temple of Ezida, as much as there was, they gave him a part, according to the decision of the priests, and that the appointment might not be questioned, they sealed the same and handed it to him for all time.

Whosoever in the future may be king, or king's son, a mighty one or doctor of the law, or judge or minister or priest or any other person whosoever may arise and carry on the government in the land, and shall alter or call in question the command of Nana and Aë, him shall Nana and Aë personally bring to judgment.

Then there follows the list of dignitaries who took part in the sealing up of the appointment. In the first place appears Nabu-Šum-imbi, son of Aplu-etir, Governor of Borsippa; in the second, Nabu-etir, son of Ardi-Ea, priest of Nebo, administrator of the sacred objects (a kind of minister of ecclesiastical affairs); furthermore, 8 other Nebo priests, among whom 2 are designated as "Sons of Aplu-etir," 1 Adad-Priest ("Son of Aplu-etir"), 3 Nana priests, 1 priest of the god Aë, 1 priest of the goddess Suti; furthermore, 2 secretaries and finally the priestly temple notary Nabu-le'u.

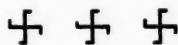
At the close, after the signature, which reads: "Borsippa, 12 Sivan, 8 year of Nabu-Šum-iškuns, king of Babylon, stone tablet of Nana and Aë, not to be contested," follows an exhortation and a curse:

Whosoever shall in the future be king or his mighty ones, whoever shall arise and shall rule, let him forever fear the word of Nana and Aë, and tremble!

Whosoever shall destroy this stone tablet with a stone, burn it in the fire, bury it in the dust, throw it into the water, take it into a dark house, where one cannot see, or shall erase the name written there and write in his own, his posterity, as many as shall have found a place on this stone tablet, may the gods annihilate!

The last remark refers to the many pictorial representations which have been placed, with marvelous delicacy of execution at the head of the tablet, *i.e.*, on the narrow upper edges (a), on the front side above Col. I and II (b), as also on the adjoining right side edge as well as on the rear side above Col. IV and III (d).

One point may here be emphasized, *i.e.*, that the first signer of the tablet in question: Nabu-Sum-imbi, son of Aplu-etir, is the same person of whom we possess the interesting record, kept in the British Museum Rm. III, 105, and with which Hugo Winckler dealt in his essay "*Eine Urkunde aus der babylonischen Kleinstaaterei*" [see *Altorientalische Forschungen* III, 1895, S. 254 ff.].



EDITORIAL NOTES

AFRICA:—ALGERIA: George Babington Mitchell in an article on *The Berbers*, published in the *Journal of the African Society*, states that the Barbary States are very rich in megalithic remains, and describes the following:

All over Algeria, but especially in the province of Constantine, are scattered assemblages of rude stones, dolmens, cromlechs, excavations in the rock. Between Constantine and Guelma there are found—at Bou-Nouara, a megalithic necropolis containing monuments of many varieties, the general type being a dolmen composed of 4 vertical blocks, and a table forming a rectangular chamber, the whole surrounded by a circle of stones; at Roknia, the necropolis covers a space of 4 or 5 miles, the dolmens being usually of the same form, and placed 4 or 5 together in one general enclosure. At Bou-Merzoug, near Constantine, over an immense extent of hill and valley, not less than 8 miles in length, are found almost every known type of megalithic monuments. At Kheneg, also near Constantine, are 3 dolmens with enclosures of rough blocks of irregular shapes. In the Aures Mountains on Jebel-Kharuba, and Jebel-Bou Driecen are great numbers of highly curious remains, consisting not only of the ordinary type of dolmen, but of circular tombs of a much more unusual construction. Near Er Rebaa, on the road from Batna to Khenchela, is also a megalithic village. Near Ain-Taxa (the ancient Tigris) under the Jebel Fortas I saw remains containing dolmens, cromlechs, menhirs, etc. This site, however, seems to have been adapted to later uses by the Romans, a bronze coin of Domitian having been found in one. Near Algiers in the Wadi Beni Messous are about a dozen megalithic monuments still entire, and a considerable number in a less perfect state of preservation. These consist of dolmens—large tabular stones, supported on four upright ones. Several interesting objects have been found in those that have been opened, such as bones, pottery, bronze ornaments, etc., which may be seen at the rooms of the Société de Climatologie at Algiers. At Djelfa, about 200 miles due south of Algiers, is another very large necropolis of the same kind near Teniet-el-Ahad, in a district called Sersou, about 50 miles southwest of Algiers, are numerous prehistoric remains containing a considerable number of interesting objects belonging to the ancient races who have inhabited the country. According to M. Jules Liorel [*Kabylie de la Djurdjura*, p. 96] the skeletons found were doubled up, the head almost always turned toward the north. The glass beads, coarse pottery and

bronze ornaments may be mostly very ancient, but some are contemporary with the Roman period.

The megalithic remains found in Tunis are interesting as being undoubtedly connected with the early Libyans. A considerable area around Mactar, near the western center of the Regency, is covered with dolmens and covered alleys. On the plateau of Hammada-Kesra and in the olive plantations below the village are dolmens and chambers—one at least of remarkable size. At Ellez, between Mactar and Kef, is a necropolis of great extent consisting of menhirs, dolmens and covered alleys which are said to resemble exactly those of Brittany and other parts of Europe. In one of them was found a rude clay lamp resembling somewhat the shape of the earliest 'Punic' lamps. It was near these buildings, in the neighborhood of Mactar, that many Libyan inscriptions were found. Several of these are now in the museum at the Bardo near Tunis. Of these 2 are bilingual—one Libyan and Neo-Punic, and another Libyan and Latin, surmounted by a rough bas-relief.

Any series of megalithic structures in the northwest of Tunis, between Souk-el-Arba and Bulla Regia, examined and described by Dr. Carton consists of stone circles, lines and tables under which human remains were found buried, accompanied by rude pottery resembling early 'Punic' feeding-bottles, bowls, etc. The skulls are said to be of the 'Cro-Magnon' type. There are also two broad cuttings into the hill, in the sides of which are dug out caves. In the neighboring 'Jebel-el-Aïrsh,' the modern burial places show that there still survive among the natives traces of the habits of their forefathers.

In Tripoli, the extensive and most interesting sites of Tarhuna and Gharian have been described, with a map and illustrations, by Barth in his *Travels and Discoveries in North and Central Africa*, Vol. I, and by Von Bary, in the *Revue d'Ethnographie*, Vol. II, p. 426, Paris, 1883. But the latest and fullest description, with photographic views, is that of Mr. H. S. Cowper, F.S.A., in the *Scottish Geographic Magazine* for January, 1896. Mr. Cowper found several indications of phallic worship in these remains—a view which seems also to be suggested by the form of the towers of the Wahhabi Mosques of Jerba to the present day. He says, 'What we find more or less ruined, at every Senam, are the following: first, a great rectangular enclosure of magnificent masonry, but seldom preserved to any height. Generally the enclosed space is divided at intervals by lines of short square columns, which in a few instances carry rudely-designed but well-worked capitals. Second, the Senams proper. These are tall megalithic structures, trilithonic in shape, with jambs and capstones, but the jambs are frequently constructed of more than one stone, and they are always placed at intervals close to or in line with the enclosure walls. As a rule, the side facing the enclosure is carefully dressed, while the other side is left rough, and in the jambs are always square perforations apparently formed with a view to support some sort of wooden structure. The Senams vary from 6 to 15 feet in height, and are erected on carefully prepared footing-stones. They were not doorways, for the passage between the jambs averages but 16½ inches, and they were in some way connected with ritual, for often, right before them, we find a massive altar flush with the ground. The Romans adopted and used these sides, and apparently preserved the Senams. Of this there is abundant evidence, and a few phallic sculptures which were found, all showing Roman influence, may possibly point to the form of rites the Romans found in use here. The trilithons in themselves look older than the masonry of the enclosures. But I venture to say it is only the idea—the traditional idea of the worship of great stones—that necessitated the erection of these strange monuments by builders who were masters of the art of masonry. It is, however, most remarkable that in the Mediterranean countries no distinct analogy can be traced between any other groups of megaliths and those on the 'high places' of Tarhuna. Indeed, neither in the Algerian dolmens, in the Maltese Temples, nor among the taulas and talayots of Minorca can we find much of anything which seems to elucidate the mystery. Strange

as it may seem, it is none the less the fact that the only monuments now standing which parallel at all the Senams of Tarhuna are the great trilithons of Salisbury Plain. The key to Stonehenge may perhaps be found in the Senams of Tripoli, but who is to find the key to the Senams?

In Cyrenaica, Hamilton describes some structures peculiar to the Cyrenaica. They consist of circles 5 or 6 feet high, surrounding a sarcophagus. Most of them are very dilapidated, but one is in perfect condition. "It is formed of 3 layers of good masonry, making a square platform, on which the sarcophagus is placed, with a circle inscribed in the square of the base, formed by a ring of stones placed edgewise in juxtaposition, no cement remaining between them. Their dimensions are about 5 by 3 feet."

Mr. Michell thinks that the so-called "Punic" tombs, recently unearthed at Carthage, Susa, Gabesand and other places in Tunis owe their peculiar forms to some Libyan influence. Although no Libyan inscriptions have been found in Carthage, there are many references to the goddess "Tanit." This is a Berber name and Mr. Michell considers that it is a "clue to some prehistoric African cult which existed in Punic times and which . . . indicates a Libyan element in the population of Carthage which would doubtless affect Punic burial customs."

EUROPE:—BRITAIN: Mr. F. Haverfield in a recent issue of the London *Athenæum* sums up the discoveries of Roman remains which have been found in Britain during 1902, as follows:

The discovery of Roman remains in Britain in 1902 were fewer than those of 1901. Excavations were discontinued at Silchester, Caerwent and Hadrian's Wall; and the Scottish Antiquaries, having completed Inchtuthill, dug up Castlecary. The results were uneven in value; the field of excavations was not enlarged by new undertakings and the list of interesting chance discoveries is short. More important results were won at Castlecary on the Wall of Pius. Here, as has long been recognized, is the site of a fort measuring some 350 by 450 feet (not quite 4 acres in extent), and commanding an extensive prospect northward. Its remains have been cruelly damaged by road and railway and no less cruelly robbed by later buildings; but the excavators have traced the ramparts, ditches and gates, and several buildings. The ramparts were built in part, if not wholly, of masonry—and, indeed, of excellent masonry—with large well-dressed blocks which far surpass the ordinary stonework of Hadrian's Wall. The sub-structures of the north rampart, which overhang a steep slope, are specially noteworthy in this respect, though the rampart which they supported is gone. Inside the fort is a buttressed storehouse, part of a bath, a latrine, and vestiges (it seems) of a prætorium and of other buildings were recovered, but the interior (unlike the forts of Hadrian's Wall) was apparently occupied only in part by stone structures. Few minor objects of importance were found, though a pit (or well) yielded numerous old boots. East of the fort was an annex such as we can trace in other forts on the Wall of Pius. No traces of rebuilding or of different periods of occupation were discovered, and everything points to the fort having been occupied only once, namely, while the wall was held in the II Century. At Camelon and at Inchtuthill, previously excavated by the same antiquaries, there were some hints of Agricola. At Castlecary we have before us (it seems) only the work of Pius. Whatever the forts were which, as Tacitus says, Agricola built from Forth to Clyde, Castlecary was apparently not one of them.

Other noteworthy finds have been few. "Villas" have been opened—not all for the first time—at Edfield, Weymouth, St. Cross near Winchester, Fifehead Neville near Sherborne, and perhaps in Greenwich Park—though the character of this last is uncertain. Discoveries also have been made at Castor, near Peter-

borough, but no details published. At Merthyr-Tydfil, near South Wales, a hypocaust and other remains are waiting exploration, and may possibly belong to a fort on the road from Gellygaer to Brecon.

ITALY:—It may be remembered that an important extension of the excavations in the Forum was made possible by the liberality of Mr. Lionel Phillips, who defrayed the cost of buying up some houses standing on the site of the Basilica Æmilia. Arrangements have been made for further work in consequence of an open-air demonstration, given by Mr. St. Clair Braddeley at the Forum on April 8, in which he dealt with the interesting results obtained from these excavations. These have proved, he explained, that the building was of far larger extent than the archæologists of any school had conjectured. In consequence of this the excavations have only enabled half of its site to be laid bare, the remainder being still encumbered by 3 houses of considerable height with their gardens. The Government has reserved to itself the right of expropriating their owners, but the cost of doing so is estimated at 4,000 *l.* (\$800.) Mr. Lionel Phillips thereupon offered to place this further sum at Mr. Braddeley's disposal for the completion of the work, and the Italian Government, we understand, has consented to avail itself of this offer. Between the basement of these houses and the ground level of the Basilica there is a depth of 26 feet of soil, which appears to contain the débris of structures. In addition to the importance of possessing accurate measurements of the building itself, the further excavation will make it possible for the first time, to come into intimate touch with the Forum Nervæ, and will display the full grandeur of the Temple of Faustina and Antoninus.

NORTH AMERICA:—**UNITED STATES:** Our valuable representative and contributor, Mr. Ellsworth Huntington, has recently been awarded the Gill Memorial by the Royal Geographical Society of London for his physiographic researches in the canyon of the Euphrates River. Mr. Huntington, in company with a party under the direction of Mr. Raphael Pumpelly, are at present exploring in Russian Turkestan, especially in the basin of the Aral Sea. They will search for remnants of the ancient civilization which once flourished there, and investigate the climatic changes which have taken place with a view to determining what has been the potent cause of the decline of this region. The party consists of Mr. Raphael Pumpelly, his son, Mr. R. W. Pumpelly, Prof. W. Davis of Harvard, Prof. Richard Norton, Director of the American School of Classical Studies at Rome, and Mr. Ellsworth Huntington. We shall await with interest the return of this expedition, the archæological results of which Mr. Huntington will furnish us on his return:—The skeleton of a Mammoth, which is perfect, is reported as having been found at Nome, Alaska, imbedded in a gravel bank on the Hanum River. If this proves to be as reported, it will be the first complete Mammoth skeleton which has been found in North America, although a great many more or less complete ones have been found scattered over the United States as far south as Texas. In Siberia, which was probably the original center from which the Mammoth migrated, there have been found a large number of fine specimens, one which was imbedded in the ice being in a perfect state of preservation.

